

to a depth of 14.5 m. (8 fathoms) off Galveston was completed in March. This investigation was undertaken to determine the role of currents in transporting postlarval shrimp. The data are now being analyzed.

A cooperative inshore current study between our Laboratory and the Institute of Marine Science at Port Aransas, Tex., began in October. Institute personnel are releasing drift bottles monthly at depths of 0.9, 12, and 14.5 m. (3, 6, and 8 fathoms) at 18 stations between Port Aransas and Port Isabel, Tex.

Kenneth N. Baxter, Project Leader

## STUDIES OF POSTLARVAL SHRIMP IN VERMILION BAY

### Prediction of Commercial Harvest

Systematic sampling for immigrating postlarval shrimp continued in Vermilion and Cote Blanche Bays, La. These studies are designed to investigate seasonal fluctuations in abundance and to determine indices for predicting the abundance of juvenile and subadult shrimp in the bays.

The abundance of postlarval brown shrimp in 1966 indicated that the commercial bay harvest of juvenile and subadult brown shrimp

would equal or exceed those of the previous 3 years. The 1966 harvest was 153,000 kg. (336,000 pounds), and the annual average catch per trip was 56 kg. (123 pounds); both greatly exceeded similar catches for 1963-65.

The abundance index for postlarval white shrimp in 1966 indicated that the white shrimp harvest would be relatively low. The harvest, 369,000 kg. (811,000 pounds), exceeded the 1965 catch but was lower than either the 1963 or 1964 production. The annual average catch of white shrimp per trip was 135 kg. (297 pounds), slightly more than half that of 1965.

### Postlarval Shrimp Identification

Electrophoretic, serological, and immunoelectrophoretic techniques were investigated as possible methods of identifying postlarvae of brown and white shrimp. Proteins from postlarval and adult shrimp had similar electrophoretic patterns, but postlarval material yielded an additional protein band that may be characteristic of this stage. This method shows promise as a routine technique for identification of postlarval shrimp.

Charles W. Caillouet, Jr., Project Leader  
University of Southwestern Louisiana  
(Contract No. 14-17-0002-179)